



Sierpinski's Puzzle

by Arya Akhavan (March 2013)

Angles for R.I. = 1.880

43 + 12 girdles = 55 facets

3-fold, mirror-image symmetry

96 index

$L/W = 1.035$ $T/W = 0.483$ $U/W = 0.434$

$P/W = 0.466$ $C/W = 0.195$

$Vol./W^3 = 0.223$

PAVILION

P2	43.00°	09-23-41-55-73-87	Meet at culet.
P1	44.85°	03-29-35-61-67-93	Cut to centerpoint.
G1	90.00°	03-29-35-61-67-93	Set stone width.
G2	90.00°	09-23-41-55-73-87	Level girdle.

CROWN

C1	45.00°	03-29-35-61-67-93	Set girdle width.
C2	39.93°	09-23-41-55-73-87	Level girdle.
C3	38.21°	07-25-39-57-71-89	Meet G1, G2, C1, C2
C4	28.23°	16-48-80	Meet G2, C2
C5	23.45°	16-48-80	Meet C2, C3, C4
C6	22.72°	15-17-47-49-79-81	Meet C1, C3; C2, C3, C4, C5
T	0.00°	Table	Meet C1, C3, C6; C5, C6

This crown layout was directly taken from the third iteration of Sierpinski's Triangle, a basic fractal taught in elementary school. Unfortunately, there's no way to keep perfectly straight lines on the table without a 120 index or higher. Works in materials from quartz to rutile (RI = 1.54 - 2.62) with no changes, but I prefer sphene. Suggested size = 8-12 mm

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